

CLAIMS

1. An information distribution system comprising an
information transmission apparatus for transmitting main
5 information and an information reception apparatus for
receiving the main information transmitted from the
information transmission apparatus, the information
reception apparatus being connected to the information
transmission apparatus via a network, wherein
10 the information transmission apparatus generates first
control information for making a request to the information
reception apparatus for transmission of a result of a
determination as to whether or not the information reception
apparatus can receive the main information and transmits the
15 generated first control information via the network;
the information reception apparatus, when receiving the
first control information transmitted from the information
transmission apparatus via the network, determines whether
or not to receive the main information transmitted from the
20 information transmission apparatus that has transmitted the
received first control information and generates second
control information indicating a result of the determination
to transmit the generated second control information to the
information transmission apparatus via the network; and
25 the information transmission apparatus receives the

second control information transmitted from the information reception apparatus via the network, and prohibits the transmission of the main information to the information reception apparatus if the received second control

5 information indicates a determination result that the main information is not received or transmits the main information to the information reception apparatus via the network if the second control information indicates a determination result that the main information is received.

10 2. An information distribution method of an information distribution system including an information transmission apparatus for transmitting main information and an information reception apparatus for receiving the main information transmitted from the information transmission
15 apparatus, the information reception apparatus being connected to the information transmission apparatus via a network, the method comprising:

a first transmission step of generating, in the information transmission apparatus, first control
20 information for making a request to the information reception apparatus for transmission of a result of a determination as to whether or not the information reception apparatus can receive the main information and transmitting the generated first control information via the network;

25 a second transmission step of determining whether or

not the main information transmitted from the information transmission apparatus that has transmitted the received first control information is received when the information reception apparatus receives via the network the first control information transmitted from the information transmission apparatus by the processing in the first transmission step, and generating second control information indicating a result of the determination to transmit the generated second control information to the information transmission apparatus via the network; and

a transmission control step of receiving in the information transmission apparatus via the network the second control information transmitted from the information reception apparatus by the processing in the second transmission step, and prohibiting the transmission of the main information to the information reception apparatus if the received second control information indicates a determination result that the main information is not received or permitting the main information to be transmitted to the information reception apparatus via the network if the second control information indicates a determination result that the main information is received.

3. An information transmission apparatus connected to an information reception apparatus via a network, comprising:

generation means for generating first control

information for making a request to the information reception apparatus for transmission of a result of a determination as to whether or not the information reception apparatus can receive main information;

5 transmission means for transmitting the first control information generated by the generation means to the information reception apparatus via the network;

 reception means for receiving, via the network, second control information transmitted from the information
10 reception apparatus as a response to the first control information transmitted by the transmission means, the second control information indicating a result of a determination as to whether or not the information reception apparatus receives the main information; and

15 transmission control means for prohibiting the transmission means from transmitting the main information to the information reception apparatus if the second control information received by the reception means indicates a determination result that the information reception
20 apparatus does not receive the main information or permitting the transmission means to transmit the main information to the information reception apparatus via the network if the second control information indicates a determination result that the information reception
25 apparatus receives the main information.

4. The information transmission apparatus according to claim 3, wherein the transmission means transmits the first control information with the main information when the transmission means transmits the main information.
- 5 5. The information transmission apparatus according to claim 3, wherein the transmission means transmits the first control information at a predetermined time interval.
6. The information transmission apparatus according to claim 3, wherein the first and second control information
10 are RTCP packet information.
7. The information transmission apparatus according to claim 3, wherein if the second control information is information indicating a reception state at the information reception apparatus, the transmission control means
15 determines that the second control information indicates a determination result that the information reception apparatus receives the main information and permits the transmission means to transmit the main information to the information reception apparatus via the network.
- 20 8. The information transmission apparatus according to claim 7, wherein the reception state is represented by a state of occurrence of an error in the main information received by the information reception apparatus.
9. An information transmission method of an information
25 transmission apparatus connected to an information reception

apparatus via a network, the method comprising:

a generation step of generating first control information for making a request to the information reception apparatus for transmission of a result of a determination as to whether or not the information reception apparatus can receive main information;

a transmission step of transmitting the first control information generated by the processing in the generation step to the information reception apparatus via the network;

10 a reception step of receiving, via the network, second control information transmitted from the information reception apparatus as a response to the first control information transmitted by the processing in the transmission step, the second control information indicating a result of a determination as to whether or not the information reception apparatus receives the main information; and

a transmission control step of prohibiting the main information from being transmitted to the information reception apparatus if the second control information received by the processing in the reception step indicates a determination result that the information reception apparatus does not receive the main information or permitting the main information to be transmitted to the information reception apparatus via the network if the

second control information indicates a determination result that the information reception apparatus receives the main information.

10. A recording medium having a program recorded thereon,
5 the program enabling a computer to execute a control method for controlling an information transmission apparatus connected to an information reception apparatus via a network, the control method comprising:

a generation step of generating first control
10 information for making a request to the information reception apparatus for transmission of a result of a determination as to whether or not the information reception apparatus can receive main information;

a transmission step of transmitting the first control
15 information generated by the processing in the generation step to the information reception apparatus via the network;

a reception step of receiving, via the network, second control information transmitted from the information reception apparatus as a response to the first control
20 information transmitted by the processing in the transmission step, the second control information indicating a result of a determination as to whether or not the information reception apparatus receives the main information; and

25 a transmission control step of prohibiting the main

information from being transmitted to the information reception apparatus if the second control information received by the processing in the reception step indicates a determination result that the information reception

5 apparatus does not receive the main information or permitting the main information to be transmitted to the information reception apparatus via the network if the second control information indicates a determination result that the information reception apparatus receives the main
10 information.

11. A program for enabling a computer to execute a control method for controlling an information transmission apparatus connected to an information reception apparatus via a network, the control method comprising:

15 a generation step of generating first control information for making a request to the information reception apparatus for transmission of a result of a determination as to whether or not the information reception apparatus can receive main information;

20 a transmission step of transmitting the first control information generated by the processing in the generation step to the information reception apparatus via the network;

a reception step of receiving, via the network, second control information transmitted from the information
25 reception apparatus as a response to the first control

information transmitted by the processing in the transmission step, the second control information indicating a result of a determination as to whether or not the information reception apparatus receives the main

5 information; and

a transmission control step of prohibiting the main information from being transmitted to the information reception apparatus if the second control information received by the processing in the reception step indicates a
10 determination result that the information reception apparatus does not receive the main information or permitting the main information to be transmitted to the information reception apparatus via the network if the second control information indicates a determination result
15 that the information reception apparatus receives the main information.

12. An information reception apparatus connected to an information transmission apparatus for transmitting main information via a network, comprising:

20 reception means for receiving first control information transmitted from the information transmission apparatus via the network, the first control information making a request for transmission of a result of a determination as to whether or not the main information can be received;

25 generation means for determining whether or not the

main information transmitted from the information
transmission apparatus that has transmitted the first
control information is received when the first control
information is received by the reception means and
5 generating second control information indicating a result of
the determination; and

transmission means for transmitting the second control
information generated by the generation means to the
information transmission apparatus via the network.

10 13. The information reception apparatus according to claim
12, wherein

the information reception apparatus is connected to a
first information transmission apparatus and to a second
information transmission apparatus via the network;

15 the generation means determines that the main
information transmitted from the second information
transmission apparatus is not received when the first
control information is received from the second information
transmission apparatus while the main information
20 transmitted from the first information transmission
apparatus is being received by the reception means, and
generates second control information indicating a result of
the determination; and

the transmission means transmits the second information
25 generated by the generation means to the second information

transmission apparatus via the network.

14. The information reception apparatus according to claim 12, wherein the first and second control information are RTCP packet information.

5 15. The information reception apparatus according to claim 12, wherein the generation means generates information indicating a reception state at the information reception apparatus as the second control information when a determination is made that the main information is received.

10 16. The information reception apparatus according to claim 15, wherein the reception state is represented by a state of occurrence of an error in the main information received by the reception means.

17. An information reception method of an information
15 reception apparatus connected to an information transmission apparatus for transmitting main information via a network, comprising:

a reception step of receiving first control information transmitted from the information transmission apparatus via
20 the network, the first control information making a request for transmission of a result of a determination as to whether or not the main information can be received;

a generation step of determining whether or not the main information transmitted from the information
25 transmission apparatus that has transmitted the first

control information is received when the first control information is received by the processing in the reception step and generating second control information indicating a result of the determination; and

5 a transmission step of transmitting the second control information generated by the processing in the generation step to the information transmission apparatus via the network.

18. A recording medium having a program recorded thereon,
10 the program enabling a computer to execute a control method for controlling an information reception apparatus connected to an information transmission apparatus for transmitting main information via a network, the control method comprising:

15 a reception step of receiving first control information transmitted from the information transmission apparatus via the network, the first control information making a request for transmission of a result of a determination as to whether or not the main information can be received;

20 a generation step of determining whether or not the main information transmitted from the information transmission apparatus that has transmitted the first control information is received when the first control information is received by the processing in the reception
25 step and generating second control information indicating a

result of the determination; and

a transmission step of transmitting the second control information generated by the processing in the generation step to the information transmission apparatus via the network.

19. A program for enabling a computer to execute a control method for controlling an information reception apparatus connected to an information transmission apparatus for transmitting main information via a network, the control method comprising:

a reception step of receiving first control information transmitted from the information transmission apparatus via the network, the first control information making a request for transmission of a result of a determination as to

whether or not the main information can be received;

a generation step of determining whether or not the main information transmitted from the information transmission apparatus that has transmitted the first control information is received when the first control information is received by the processing in the reception step and generating second control information indicating a result of the determination; and

a transmission step of transmitting the second control information generated by the processing in the generation step to the information transmission apparatus via the

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network.